Title (en)
ASCORBIC ACID PRODUCTION FROM YEASTS

Title (de)
HERSTELLUNG VON ASCORBINSÄURE IN HEFEN

Title (fr)
PRODUCTION D'ACIDE ASCORBIQUE A PARTIR DE LEVURE

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Application
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Abstract (en)
[origin: WO0210425A2] Herein is disclosed a method of generating ascorbic acid from yeast. In one embodiment, the yeast is a Zygosaccharomyces or a Kluyveromyces spp. cultured in a medium comprising an ascorbic acid precursor. In a second embodiment the yeast is a recombinant yeast growing in a medium comprising an ascorbic acid precursor. Preferably the recombinant yeast is transformed with a coding region encoding an enzyme selected from L-galactose dehydrogenase (LGDH), l-galactono-1,4-lactone dehydrogenase (AGD), D-arabinose dehydrogenase (ARA), D-arabinono-1,4-lactone oxidase (ALO), L-gulono-1,4-lactone oxidase (GLO), and aldonolactonase (AL). The ascorbic acid precursor is preferably D-glucose, L-galactose, L-galactono-1,4-lactone, L-gulono-1,4-lactone, or L-gulonic acid. In another preferred embodiment the ascorbic acid is accumulated in the medium at levels greater than background. Preferably, the yeast is capable of converting about 25 % of the ascorbic acid precursor to L-ascorbic acid.

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